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Monthly Progress Letter No. 14

Contract No. A-101

System 3

SAPC-9591  
cy 537

4 August 1956 to 4 September 1956

CMCC Document No. 163X5.12

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1-0. GENERAL.

1-1. During the interval covered by this report, the principal effort has been directed toward expediting the production of System 3. A prototype model of the subassembly required for System 3A, and a production model of the test set were completed.

2-0. SYSTEM ENGINEERING.

2-1. System production drawings and parts lists are being brought up-to-date. Suitable parts substitutions have been made where the procurement time of certain critical items would have caused delay in the production schedule. Complete test specifications for subassemblies and for the system are being prepared. A minor circuit change which will improve the reliability of the system has been studied and is being incorporated. This will require redesign of one of the potted capsules, but is not expected to delay production work.

3-0. PRODUCTION SYSTEM 3.

3-1. Two systems have been shipped. However, procurement difficulties are beginning to create delays in the current production schedule. The procurement of etched circuit boards of acceptable quality and in sufficient quantity poses one of the more serious problems. Chiefly for these reasons, the production schedule has been revised as shown below.

<u>Shipment Date</u>	<u>Number of Systems</u>
Shipped	2
October 12	3
October 29	4
Thereafter	2 per week

4-0 SYSTEM 3 TEST SET.

4-1. The first production model of the preflight test set has been assembled. (See figure 1.) In general, the unit operates satisfactorily,

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and a complete checkout of the test set, used in conjunction with System 3, is presently in process. The first production model of the test set is scheduled to be shipped on 21 September 1956.

4-2. The external dimensions of the test set case are: width 22 inches, height 23 1/2 inches, depth 19 inches. The front control panel, measuring 17 inches wide by 17 1/2 inches high, and the chassis to which it is attached, are designed to fit a standard rack and panel configuration. Briefly, the test set consists of a crystal-controlled signal generator with calibrated output amplitude, frequency-code checking circuit, and power supply.

#### 5-0. SYSTEM 3A.

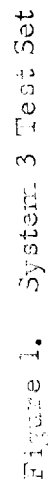
5-1. The subassembly which constitutes the major modification to System 3 in the conversion to System 3A has been completed in prototype form. (See figure 2.) Operation of the subassembly is satisfactory and System 3A tests are now in progress. Four additional subassemblies are being constructed, three of which are to be used in engineering tests, and one of which is to be used as a production model. Production drawings of the System 3A subassemblies are presently being prepared.

5-2. In field use, the three second local-oscillator assemblies of System 3 would be unplugged and replaced by plug-in modification assemblies to effect the conversion. In System 3A, frequency channels are selected by means of a rotary switch, and r-f bands are selected by means of a slide switch. Single-channel, or two-channel operation is selected by means of a toggle switch. All switches are located in such a position that they may be operated with the assemblies plugged in.

#### 6-0. PLANNING.

6-1. During the coming month every effort will be made to accelerate production work, and System 3A will enter its production phase.

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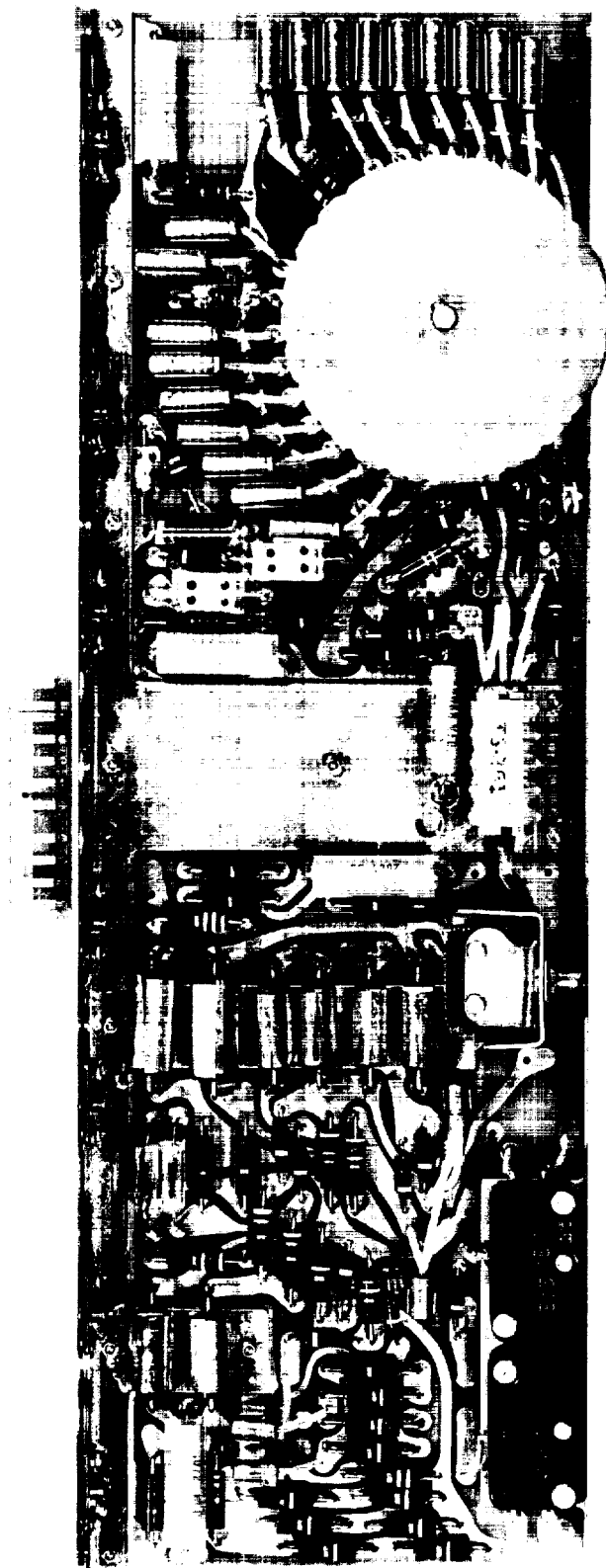


Figure 2. System 3A Plug-In Subassembly

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